

UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF TEXAS  
WACO DIVISION

WSOU INVESTMENTS, LLC D/B/A  
BRAZOS LICENSING AND DEVELOPMENT,

No. 6:20-cv-00812

**JURY TRIAL DEMANDED**

Plaintiff,

v.

JUNIPER NETWORKS, INC.,

Defendant.

**BRAZOS'S COMPLAINT AGAINST JUNIPER FOR  
INFRINGEMENT OF U.S. PATENT NO. 7,382,781**

Plaintiff WSOU Investments, LLC d/b/a Brazos Licensing and Development ("Brazos"), by and through its attorneys, files this Complaint for Patent Infringement against defendant Juniper Networks, Inc. ("Juniper") and alleges:

**NATURE OF THE ACTION**

1. This is a civil action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. §§ 1 *et seq.*, including §§ 271, 281, 284, and 285.

**THE PARTIES**

2. Brazos is a limited liability corporation organized and existing under the laws of Delaware, with its principal place of business at 605 Austin Avenue, Suite 6, Waco, Texas 76701.

3. On information and belief, Juniper is a corporation organized and existing under the laws of Delaware, with a regular and established place of business located at 1120 South Capital of Texas Highway, Suite 120, First Floor, Building 2, Austin, Texas 78746. Juniper may be served through its designated agent for service of process, CT Corporation System, 1999

Bryan Street, Suite 900, Dallas, Texas, 75201. On information and belief, Juniper is registered to do business in the State of Texas and has been since at least April 27, 2017.

**JURISDICTION AND VENUE**

4. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

5. This Court has specific and general personal jurisdiction over Juniper pursuant to due process and/or the Texas Long Arm Statute because Juniper has committed and continues to commit acts of patent infringement, including acts giving rise to this action, within the State of Texas and this Judicial District. The Court's exercise of jurisdiction over Juniper would not offend traditional notions of fair play and substantial justice because Juniper has established minimum contacts with the forum. For example, on information and belief, Juniper has committed acts of infringement in this Judicial District, directly and/or through intermediaries, by, among other things, making, using, offering to sell, selling, and/or importing products and/or services that infringe the Asserted Patent, as alleged herein.

6. Upon information and belief, Juniper has continuous and systematic business contacts with the State of Texas. Juniper is registered to do business in the State of Texas, has offices and facilities in the State of Texas, and actively directs its activities to customers located in the State of Texas. Juniper, directly and/or through affiliates and/or intermediaries, conducts its business extensively throughout the State of Texas, by shipping, importing, manufacturing, distributing, offering for sale, selling, and/or advertising its products and services in the State of Texas and this Judicial District.

7. Venue is proper in this Court pursuant to 28 U.S.C. § 1400(b). Juniper is registered to do business in the State of Texas, and, upon information and belief, Juniper has transacted business in this Judicial District, and has committed acts of direct and indirect

infringement in this Judicial District by, among other things, importing, offering to sell, and selling products that infringe the Asserted Patent. Juniper has regular and established places of business in this Judicial District, as set forth below.

8. Juniper maintains a regular and established place of business in this Judicial District, at least at 1120 South Capital of Texas Highway, Suite 120, First Floor, Building 2, Austin, Texas 78746. Upon information and belief, Juniper conducts business, serves customers, and markets and/or sells its products from its regular and established place of business in Austin, Texas, in this Judicial District.

9. Upon information and belief, Juniper maintains additional regular and established places of business in the State of Texas, nearby to this Judicial District, including at Granite Park V, 5830 Granite Pkwy #850, Plano, Texas 75024.

10. Juniper's Form 10-K for the fiscal year ended December 31, 2019 states, in part:

Juniper Networks designs, develops, and sells products and services for high-performance networks to enable customers to build scalable, reliable, secure and cost-effective networks for their businesses . . . . We organize and manage our business by major functional departments on a consolidated basis as one operating segment. We sell our high-performance network products and service offerings across routing, switching, and security technologies. In addition to our products, we offer our customers services, including maintenance and support, professional services, and education and training programs.<sup>1</sup>

11. Upon information and belief, Juniper designs, manufactures, uses, imports into the United States, sells, and/or offers for sale in the United States products that infringe the Asserted Patent, directly and or through intermediaries, as alleged herein. Juniper markets, sells, and/or offers to sell its products and services, including those accused herein of infringement, to actual and potential customers and end-users located in the State of Texas and in this Judicial District, as alleged herein.

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<sup>1</sup> See [https://s1.q4cdn.com/608738804/files/doc\\_financials/2019/q4/2019-10-K-Final.pdf](https://s1.q4cdn.com/608738804/files/doc_financials/2019/q4/2019-10-K-Final.pdf) at 3.

12. Juniper's website advertises and promotes its products and services to customers nationwide, and permits customers to request a quote or buy directly from Juniper by requesting a direct call or email from a Juniper representative.<sup>2</sup>

**COUNT I**  
**Infringement of U.S. Patent No. 7,382,781**

13. Brazos re-alleges and incorporates by reference the preceding paragraphs 1–12 of this Complaint.

14. On June 3, 2008, the U.S. Patent & Trademark Office duly and legally issued U.S. Patent No. 7,382,781 (the “’781 Patent”), entitled “Multicast Architecture for a Virtual Private Local Area Network Service in a Metro Ethernet Network.” A true and correct copy of the ’781 Patent is attached as Exhibit A to this Complaint.

15. Brazos is the owner of all rights, title, and interest in and to the ’781 Patent, including the right to assert all causes of action arising under the ’781 Patent and the right to any remedies for the infringement of the ’781 Patent.

16. Juniper makes, uses, sells, offers for sale, imports, and/or distributes in the United States, including within this Judicial District, products running Juniper's Junos OS operating system and supporting IS-IS and multicast,<sup>3</sup> including, but not limited to, Juniper's QFX Series Switches,<sup>4</sup> EX Series Switches,<sup>5</sup> MX Series 5G Universal Routing Platform,<sup>6</sup> NFX Series

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<sup>2</sup> See <https://www.juniper.net/us/en/how-to-buy/>.

<sup>3</sup> See <https://www.juniper.net/us/en/products-services/nos/junos/>.

<sup>4</sup> See <https://www.juniper.net/us/en/products-services/switching/qfx-series/>;  
<https://www.juniper.net/us/en/products-services/switching/qfx-series/datasheets/1000480.page>.

<sup>5</sup> See <https://www.juniper.net/us/en/products-services/switching/ex-series/>;  
[https://www.juniper.net/documentation/en\\_US/junos/topics/reference/configuration-statement/interface-edit-protocols-isis.html](https://www.juniper.net/documentation/en_US/junos/topics/reference/configuration-statement/interface-edit-protocols-isis.html).

Network Services Platform,<sup>7</sup> and SRX Series Services Gateways<sup>8</sup> (collectively, the “Accused Products”).

17. Junos OS is the operating system that runs on the physical, virtual networking and security products offered by Juniper:<sup>9</sup>

Innovatively designed for simplicity, Junos OS is the single operating system that powers Juniper’s broad portfolio of physical and virtual networking and security products. Built for reliability, security, and flexibility, it runs some of the world’s most sophisticated network deployments, giving operators a competitive advantage over those who run other network operating systems.

Junos OS automates network operations with streamlined precision, furthers operational efficiency, and frees up valuable time and resources for top-line growth opportunities.

18. The Accused Products practice a method of operating a computer network along which network traffic flows between a plurality of nodes in the form of packets.

19. Specifically, the Accused Products run and maintain the operation of devices in a network along which traffic flows between a plurality of nodes in the form of packets. The Accused Products implement the “IS-IS protocol,” which is “an interior gateway protocol (IGP) that uses link state information to make routing decisions.” “IS-IS uses hello packets that allow network convergence to occur quickly when network changes are detected.” “An IS-IS network is a single autonomous system (AS), also called a *routing domain*, that consists of *end systems*

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<sup>6</sup> See <https://www.juniper.net/us/en/products-services/routing/mx-series/>; [https://www.juniper.net/documentation/en\\_US/junos/topics/reference/configuration-statement/interface-edit-protocols-isis.html](https://www.juniper.net/documentation/en_US/junos/topics/reference/configuration-statement/interface-edit-protocols-isis.html).

<sup>7</sup> See <https://www.juniper.net/us/en/products-services/sdn/nfx-series/>; [https://www.juniper.net/documentation/en\\_US/junos/information-products/pathway-pages/nfx-series/nfx150-getting-started.pdf](https://www.juniper.net/documentation/en_US/junos/information-products/pathway-pages/nfx-series/nfx150-getting-started.pdf).

<sup>8</sup> See <https://www.juniper.net/us/en/products-services/security/srx-series/>; [https://www.juniper.net/documentation/en\\_US/junos/information-products/pathway-pages/config-guide-routing/config-guide-routing-is-is.pdf](https://www.juniper.net/documentation/en_US/junos/information-products/pathway-pages/config-guide-routing/config-guide-routing-is-is.pdf).

<sup>9</sup> See *supra* note 3.

and *intermediate systems*. End systems are network entities that send and receive packets.

Intermediate systems send and receive packets and relay (forward) packets.”<sup>10</sup>

20. The Accused Products communicate unicast packet traffic along the network according to a first traffic configuration along the network.

21. The Accused Products route unicast packet traffic according to unicast metrics and unicast routing tables, which are a first traffic configuration.

22. The Accused Products communicate multicast packet traffic along the network according to a second traffic configuration along the network, wherein the second traffic configuration differs from the first traffic configuration. “In certain instances, the unicast routing table used for the [reverse path forwarding (RPF)] check is also the table used for forwarding unicast data packets.”<sup>11</sup>

23. Juniper’s documentation for the Accused Products describes the address configuration of unicast data traffic that is used to communicate unicast data traffic based on the first configuration:<sup>12</sup>

A unicast address identifies a single interface. When a network device sends a packet to a unicast address, the packet goes only to the specific interface identified by that address. Unicast addresses support a global address scope and two types of local address scopes.

A unicast address consists of  $n$  bits for the prefix and  $128 - n$  bits for the interface ID.

In the IPv6 implementation for a subscriber access network, the following types of unicast addresses can be used:

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<sup>10</sup> See [https://www.juniper.net/documentation/en\\_US/junos/information-products/pathway-pages/config-guide-routing/config-guide-routing-is-is.pdf](https://www.juniper.net/documentation/en_US/junos/information-products/pathway-pages/config-guide-routing/config-guide-routing-is-is.pdf) at 3.

<sup>11</sup> See *supra* note 10 at 179.

<sup>12</sup> See [https://www.juniper.net/documentation/en\\_US/junos/topics/concept/subscriber-management-dual-stack-ipv6-address-types.html](https://www.juniper.net/documentation/en_US/junos/topics/concept/subscriber-management-dual-stack-ipv6-address-types.html).

- Global unicast address—A unique IPv6 address assigned to a host interface. These addresses have a global scope and essentially the same purposes as IPv4 public addresses. Global unicast addresses are routable on the Internet.
- Link-local IPv6 address—An IPv6 address that allows communication between neighboring hosts that reside on the same link. Link-local addresses have a local scope, and cannot be used outside the link. They always have the prefix FE80::/10.
- Loopback IPv6 address—An IPv6 address used on a loopback interfaces. The IPv6 loopback address is 0:0:0:0:0:0:1, which can be notated as ::1/128.
- Unspecified address—An IPv6 unspecified address is 0:0:0:0:0:0:0, which can be notated at ::/128.

24. The Accused Products communicate routing information representing at least a portion of the second traffic configuration to each node in the plurality of nodes, wherein each node in the plurality of nodes routes multicast traffic in response to at least a portion of the second traffic configuration.

25. The Accused Products are configured to calculate an alternate multicast topology, in addition to the unicast topology and adds corresponding routes to inet.2 (*i.e.*, an alternate unicast routing table). Additionally, the information related to the second configuration (*i.e.*, the multicast topology and the corresponding routes) present in inet.2 is also advertised as shown below:<sup>13</sup>

Most multicast routing protocols perform a reverse-path forwarding (RPF) check on the source of multicast packets. If a packet comes in on the interface that is used to send data to the source, the packet is accepted and forwarded to one or more downstream interfaces. Otherwise, the packet is discarded and a notification is sent to the multicast routing protocol running on the interface.

In certain instances, the unicast routing table used for the RPF check is also the table used for forwarding unicast data packets. Thus, unicast and multicast routing are congruent. In other cases, where it is preferred that multicast routing be independent of unicast routing, the multicast routing protocols are configured to perform the RPF check using an alternate unicast routing table inet.2.

You can configure IS-IS to calculate an alternate IPv4 multicast topology, in addition to the normal IPv4 unicast topology, and add the corresponding routes to

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<sup>13</sup> See *supra* note 10 at 179–80.

inet.2. The IS-IS interface metrics for the multicast topology can be configured independently of the unicast metrics. You can also selectively disable interfaces from participating in the multicast topology while continuing to participate in the regular unicast topology. This enables you to exercise control over the paths that multicast data takes through a network so that it is independent of unicast data paths. You can also configure IS-IS to calculate an alternate IPv6 multicast topology, in addition of the normal IPv6 unicast topology.

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NOTE: IS-IS only starts advertising the routes when the interface routes are in inet.2.

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Thus, the routing information (*i.e.*, the corresponding routes of the multicast topology) that is a portion of the second configuration is also advertised (*i.e.*, communicated) to the nodes in the network. Based on the communicated second configuration, the nodes are configured to control which path the multicast data must take in the network.

26. “The IS-IS protocol is an interior gateway protocol (IGP) that uses link-state information to make routing decisions.”<sup>14</sup> In a link-state based IGP, the routes determined by the link-state based interior gateway IS-IS protocol are communicated to all routers (*i.e.*, each node) in the area/network (*i.e.*, routes added into inet.2 are advertised by IS-IS to each node):<sup>15</sup>

The propagation of link-state updates is determined by the level boundaries. All routers within a level maintain a complete link-state database of all other routers in the same level. Each router then uses the Dijkstra algorithm to determine the shortest path from the local router to other routers in the link-state database.

27. In view of the preceding paragraphs 18–26, each and every element of at least claim 18 of the ’781 Patent is found in the Accused Products.

28. Juniper continues to directly infringe at least one claim of the ’781 Patent, literally or under the doctrine of equivalents, by making, using, selling, offering for sale, importing, and/or distributing the Accused Products in the United States, including within this Judicial

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<sup>14</sup> See *supra* note 10 at 3.

<sup>15</sup> See *supra* note 10 at 21.

District, without the authority of Brazos. Juniper's infringing use of the Accused Products includes its internal use and testing of the Accused Products.

29. Juniper has received notice and actual or constructive knowledge of the '781 Patent since at least the date of service of this Complaint.

30. Since at least the date of service of this Complaint, through its actions, Juniper has actively induced product makers, distributors, retailers, and/or end users of the Accused Products to infringe the '781 Patent throughout the United States, including within this Judicial District, by, among other things, advertising and promoting the use of the Accused Products in various websites, including providing and disseminating product descriptions, operating manuals, and other instructions on how to implement and configure the Accused Products. Examples of such advertising, promoting, and/or instructing include the documents at:

- <http://www.juniper.net/assets/us/en/local/pdf/datasheets/1000616-en.pdf>; and
- [https://www.juniper.net/documentation/en\\_US/junos/information-products/pathway-pages/config-guide-multicast/config-guide-multicast.pdf](https://www.juniper.net/documentation/en_US/junos/information-products/pathway-pages/config-guide-multicast/config-guide-multicast.pdf).

31. Juniper was and is aware that the normal and customary use by end users of the Accused Products infringes the '781 Patent. Juniper's inducement is ongoing.

32. Since at least the date of service of this Complaint, through its actions, Juniper has contributed to the infringement of the '781 Patent by having others sell, offer for sale, or use the Accused Products throughout the United States, including within this Judicial District, with knowledge that the Accused Products infringe the '781 Patent. The Accused Products have special features that are especially made or adapted for infringing the '781 Patent and have no substantial non-infringing use. For example, in view of the preceding paragraphs, the Accused Products contain functionality which is material to at least claim 18 of the '781 Patent.

33. The special features include using the IS-IS protocol to control the routing of multicast packet traffic according to a multicast traffic configuration that differs from a traffic configuration used for unicast packet traffic in a manner that infringes the '781 Patent.

34. The special features constitute a material part of the invention of one or more claims of the '781 Patent and are not staple articles of commerce suitable for substantial non-infringing uses.

35. Brazos has suffered damages as a result of Juniper's direct and indirect infringement of the '781 Patent in an amount adequate to compensate for Juniper's infringement, but in no event less than a reasonable royalty for the use made of the invention by Juniper, together with interest and costs as fixed by the Court.

**JURY DEMAND**

Brazos hereby demands a jury on all issues so triable.

**PRAYER FOR RELIEF**

WHEREFORE, Brazos respectfully requests that the Court:

- (a) enter judgment that Juniper infringes one or more claims of the '781 Patent literally and/or under the doctrine of equivalents;
- (b) enter judgment that Juniper has induced infringement and continues to induce infringement of one or more claims of the '781 Patent;
- (c) enter judgment that Juniper has contributed to and continues to contribute to the infringement of one or more claims of the '781 Patent;
- (d) award Brazos damages, to be paid by Juniper in an amount adequate to compensate Brazos for such damages, together with pre-judgment and post-judgment interest for the infringement by Juniper of the '781 Patent through the date such judgment is entered in

accordance with 35 U.S.C. § 284, and increase such award by up to three times the amount found or assessed in accordance with 35 U.S.C. § 284;

(e) declare this case exceptional pursuant to 35 U.S.C. § 285; and

(f) award Brazos its costs, disbursements, attorneys' fees, and such further and

additional relief as is deemed appropriate by this Court.

Respectfully submitted,

Dated: September 4, 2020

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